

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FEDERAL-AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
531-2-HB	531-2-HB	COOK	21	1
U. S. P. S. REG. NO. 4 ILLINOIS PROJECT U-184 (31)				

DISTRICT 10
S.B.I. ROUTE 53 (F.A. ROUTE 61) SECTION 531-2-HB
EUCLID AVENUE STRUCTURE
OVER RELOCATED ROUTE 53
PROJECT U-184(31)
COOK COUNTY

PROJECT U-184 (31)
 ENDS STA. 29+86.78

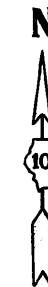
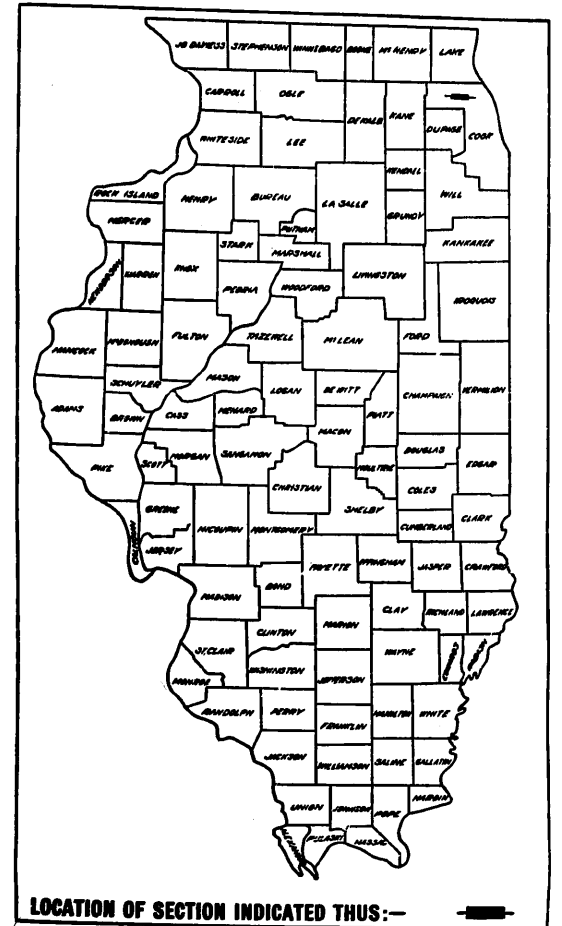
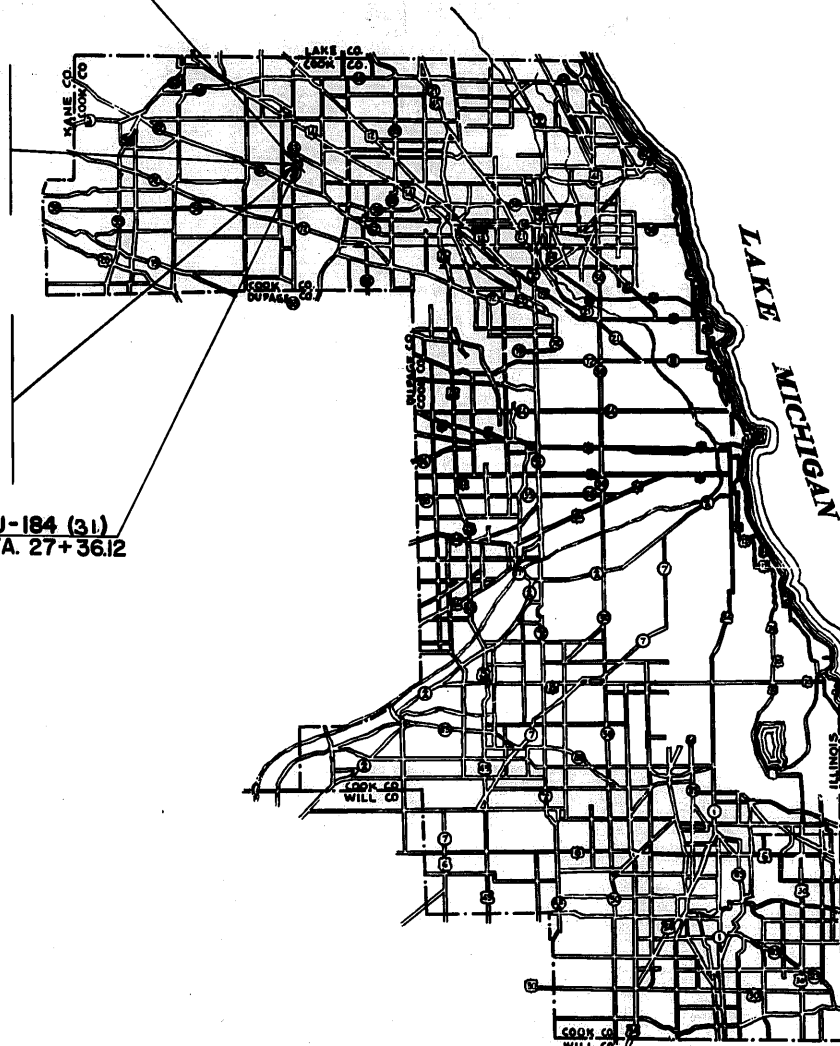
PROJECT LENGTH 250.66 LIN. FT. (0.047 MILES)

SECTION 531-2-HB INCLUDES THE CONSTRUCTION OF A 4-SPAN CONTINUOUS WIDE FLANGE BEAM GRADE SEPARATION STRUCTURE (TO CARRY EUCLID AVENUE OVER RELOCATED ROUTE 53) WITH SPANS 2 AT 79'-6", 1 AT 49'-3" AND 1 AT 37'-7", ON OPEN R.C. ABUTMENTS AND R. C. PIERS, AT STATION 215+29.43 (STATION 28+65.20 ON EUCLID AVENUE) IN THE CITY OF ROLLING MEADOWS AND PALATINE TOWNSHIP;

ALSO

SECTION 531-2-HB INCLUDES THE FURNISHING, FABRICATION, SHOP PAINTING AND DELIVERY OF THE STRUCTURAL STEEL, F. O. B. THE STRUCTURE SITE, FOR THE 4-SPAN CONTINUOUS WIDE FLANGE BEAM GRADE SEPARATION STRUCTURE (TO CARRY EUCLID AVENUE OVER RELOCATED ROUTE 53) AT STATION 215+29.43 (STATION 28+65.20 ON EUCLID AVENUE) IN THE CITY OF ROLLING MEADOWS AND PALATINE TOWNSHIP.

PROJECT U-184 (31)
 BEGNS STA. 27+36.12



STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
 DIVISION OF HIGHWAYS

SUBMITTED 5-15-1963
Marshall DeBourcy
 DISTRICT ENGINEER

EXAMINED June 3 1963
A. O. Jam. (unreadable)
 DIVISION OF HIGHWAYS AND CONTROLS

PASSED June 3 1963
(unreadable)
 DIVISION ENGINEER

APPROVED June 3 1963
(unreadable)
 CHIEF HIGHWAY ENGINEER

APPROVED June 3 1963
(unreadable)
 DIRECTOR

DEPARTMENT OF COMMERCE
 BUREAU OF PUBLIC ROADS

APPROVED DATE

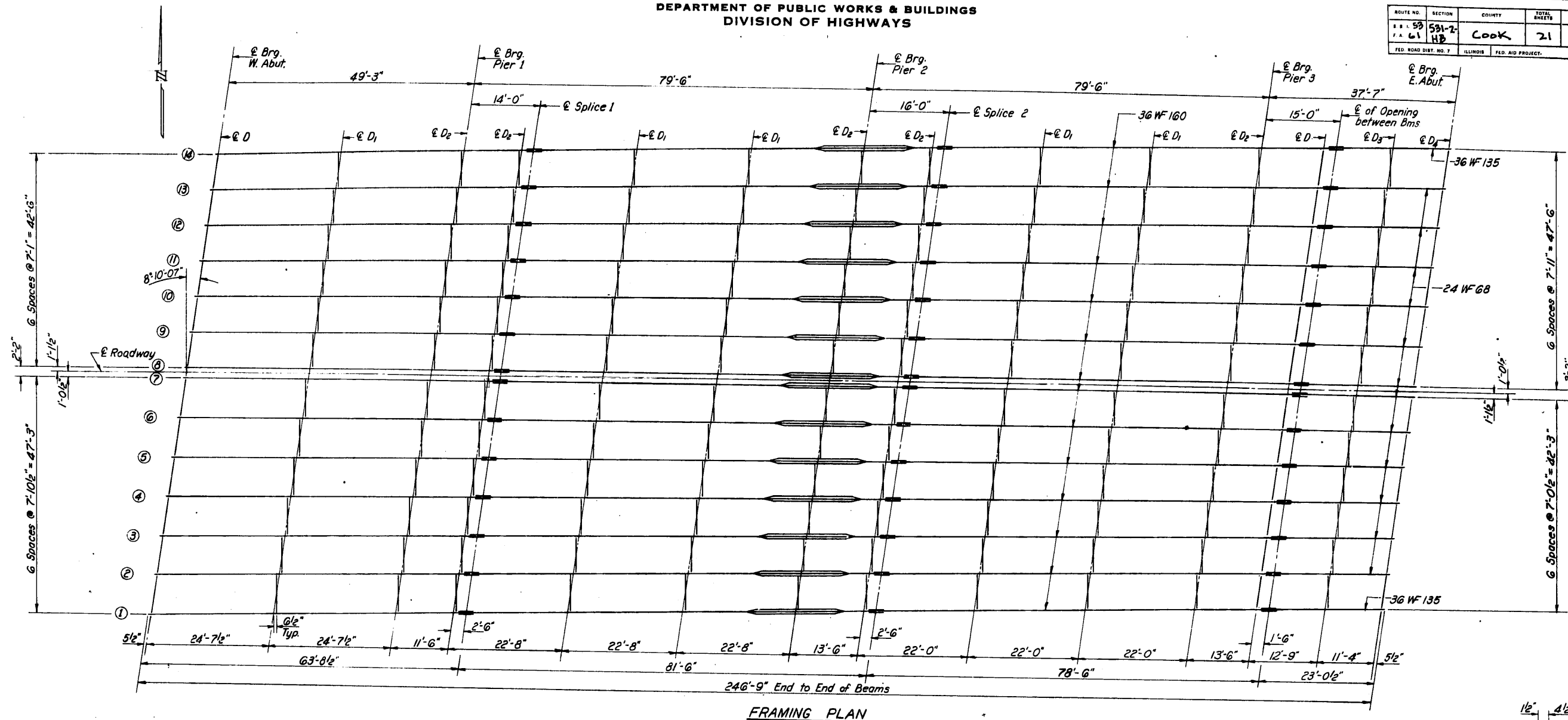
DIVISION ENGINEER

Job No. 23122

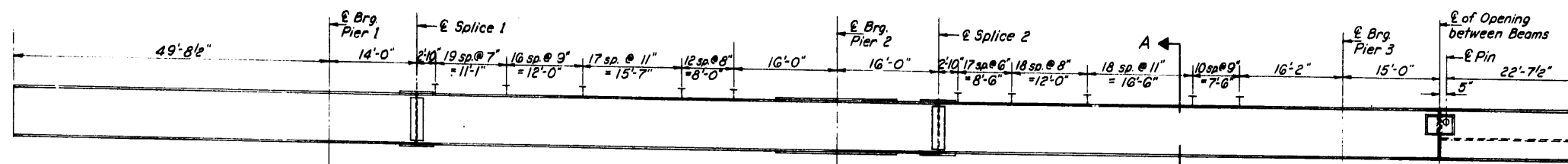
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59	531-2	COOK	21	7
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT.

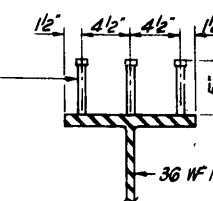
SHEET NO. 5
15 SHEETS



FRAMING PLAN



BEAM ELEVATION
Showing Shear Connectors
387 Studs per Beam



SECTION A-A
Total No Studs = 5,418
Est. Wt. = 4,010 #
Weight of studs are included in quantity of Structural Steel, Sheet # 2.

NOTE:
All Dimensions are parallel or perpendicular to E Roadway.

NOTE: See sheet #12 for Structural Steel Details.

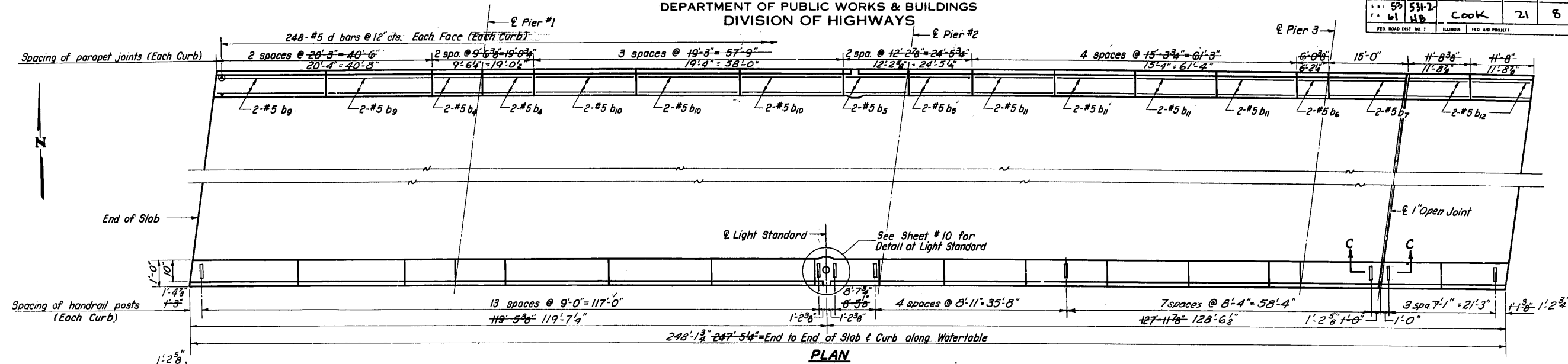
DESIGNED	Fred Stone	EXAMINED	W. Baumann
CHECKED	Bobby S. Chitko	PASSED	L. J. Stewart
DRAWN	J.L. Armstrong	APPROVED	B.G.C.
CHECKED	B.G.C.		

STRUCTURAL STEEL
S.B.I. RT. 53 SEC. 531-2-HB
COOK COUNTY
STA. 215 + 29.43

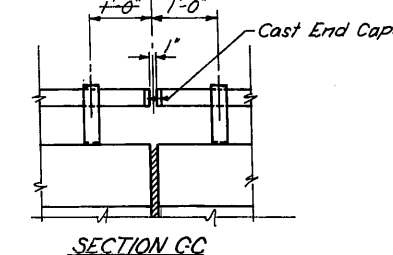
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ADULT NO.	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.
59	531-2-61	COOK	21	8
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

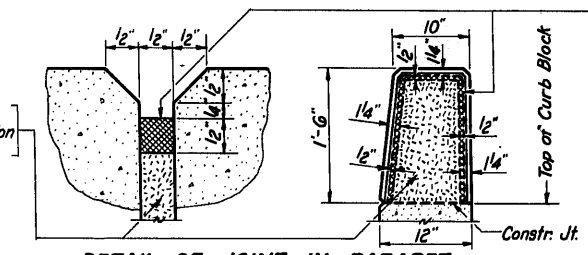
SHEET NO. 4
15 SHEETS



PLAN

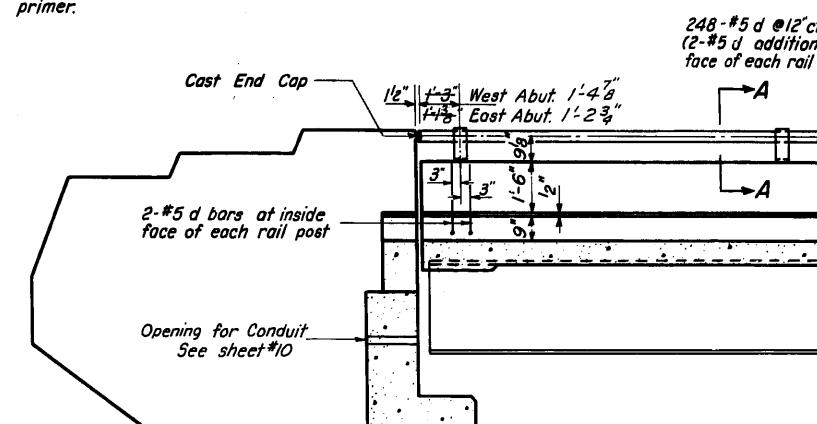


SECTION CC



DETAIL OF JOINT IN PARAPET

Two component non-staining gray sealing compound with polysulfide liquid polymers - gun grade with primer.



ELEVATION - END POST

SEC. THRU CURB

The bar list below is in addition to the number of bars in list on sheet #2.

BILL OF MATERIAL

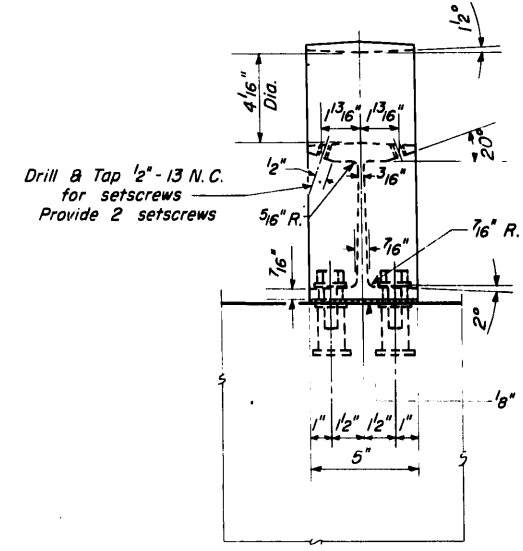
Item	Unit	Quantity
Aluminum Handrail	Lin. Ft.	495
Reinforcement Bars	Lbs	5,100

Bar	No.	Size	Length	Shape
b4	16	#5	9'-3"	
b5	16	#5	12'-0"	
b6	8	#5	5'-9"	
b7	8	#5	14'-4"	
b8	16	#5	20'-0"	
b9	24	#5	19'-0"	
b10	32	#5	15'-0"	
b11	16	#5	11'-5"	
b12	108	#5	2'-8"	

Total Quantity of Reinf. Bars is included in Superstr. Bill of Material sheet #2.

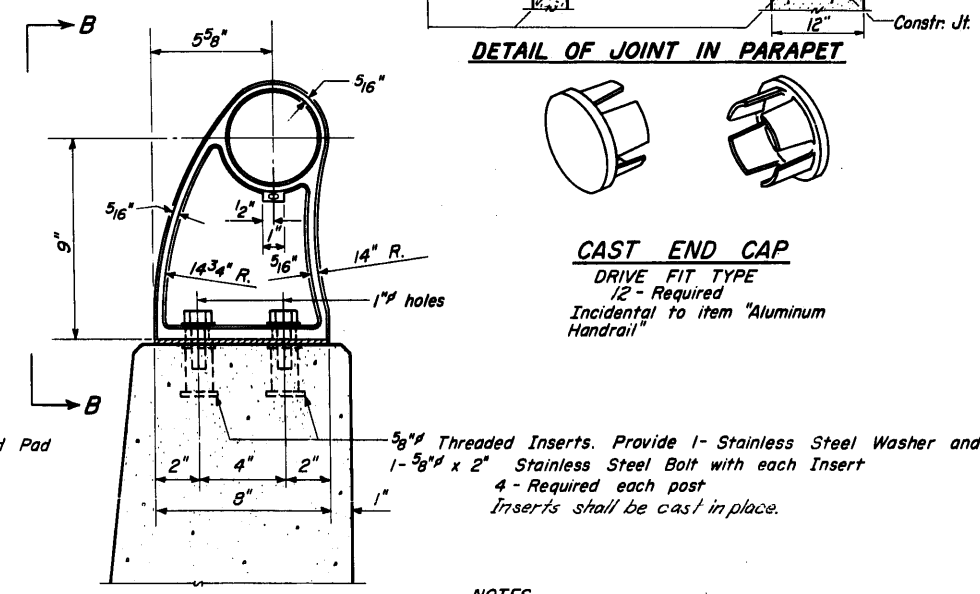
TYPE D
ALUMINUM HANDRAIL

ALUMINUM
HANDRAIL DETAILS
S.B.I. RT. 53 SEC. 531-2-HB
COOK COUNTY
STA. 215+29.43



VIEW B-B

RAIL POST DETAILS

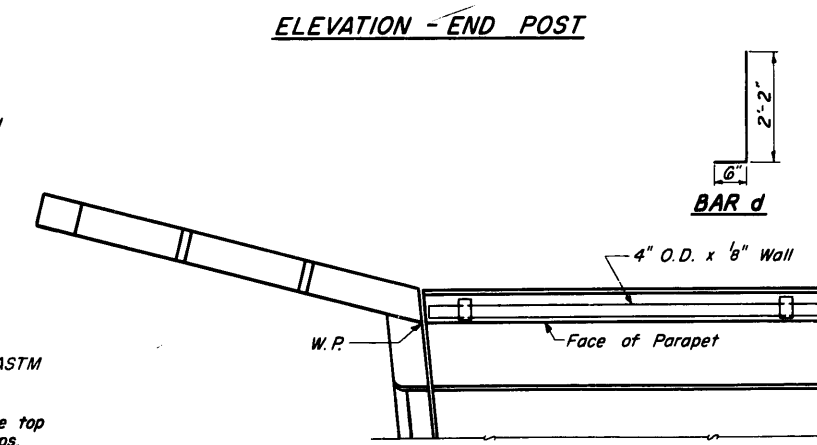


SECTION A-A

CAST END CAP
DRIVE FIT TYPE
1/2" Required
Incidental to item "Aluminum Handrail"

NOTES

- All Posts shall be placed normal to parapet
- All Posts shall be of Aluminum conforming to ASTM Specification B-108 alloy SG-70B-T6.
- All Rail Tubing shall be of Aluminum conforming to ASTM Specification B-235 alloy 6061-T6.
- Aluminum handrail shall be measured in lineal feet. The length paid for shall be the overall length along the top longitudinal railing member through all post and gaps.
- Rail Tubing may extend a maximum of 3 panel lengths.
- For material composition of Prefabricated Pad, See Art. 54.9 (f), (Bearings and Anchorage), of the Std. Specs.
- Set Screws shall be of Aluminum conforming to ASTM Specification B-211 alloy 2024-T4.
- Aluminum handrail will be paid for at the contract unit price per lineal foot for ALUMINUM HANDRAIL, measured as specified, which price shall be payment in full for all materials, fabrication, transportation and erection.



PLAN - END POST

See Sheet 4A for alternate metal handrail type-E

DESIGNED	Fred Stone
CHECKED	Muri Paracheis
DRAWN	J. L. Armstrong W. A. Sausaman
CHECKED	M.T.

EXAMINED	W. Baumann
PASSED	E. J. Shultz
APPROVED	[Signature]

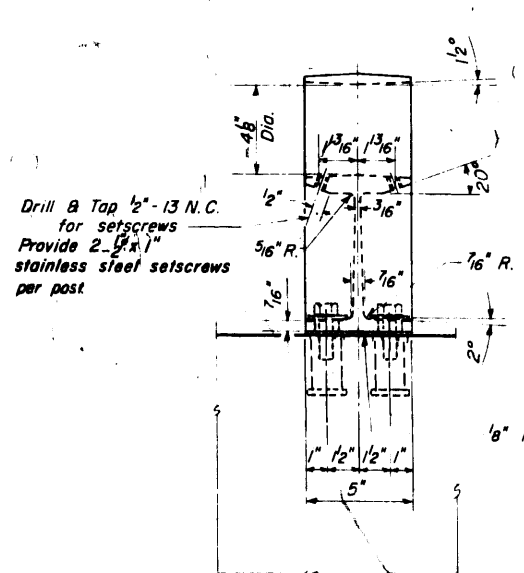
R-10 Drawn 2-16-60 Rev. 11-2-62

J.J.R. Rev. 5-5-64 Spacing of parapet joints, handrail posts and handrail quantity.

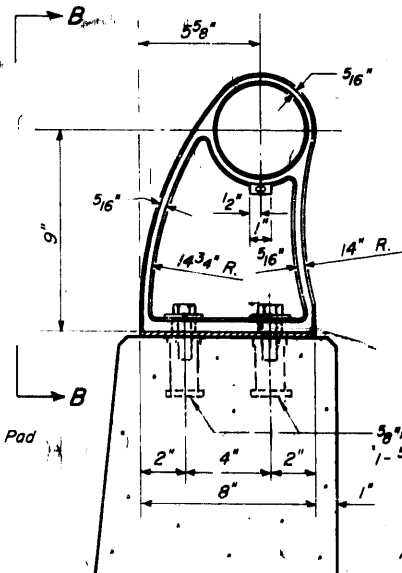
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	DIST. SHEET	SHEET NO.	SHEET NO. 4A 15 SHEETS
50 61	531-2 HB	COOK	21	8A	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			

NOTE: FOR ADDITIONAL DETAILS
SEE SHEET 4



VIEW B-B
RAIL POST DETAILS



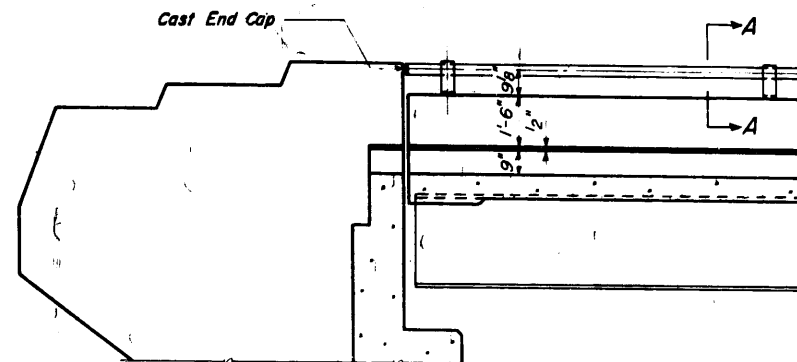
SECTION A-A



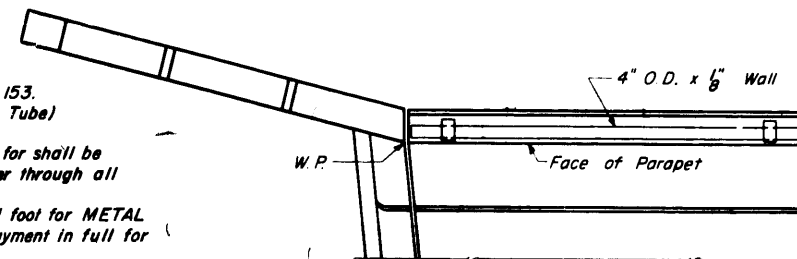
CAST END CAP
DRIVE FIT TYPE
12 Required
Galvanize to A.S.T.M. A-153.
Incidental to item "Metal Handrail".

5/8" Threaded Inserts. Provide 1- Stainless Steel Washer and
1- 5/8" x 2" Stainless Steel Bolt with each Insert
4 - Required each post
Inserts shall be cast in place.

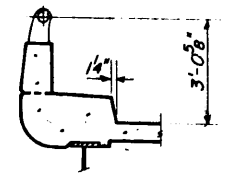
- NOTES:**
- All Posts shall be placed normal to parapet.
 - All Posts shall be malleable cast iron conforming to A.S.T.M. A-47, Grade 350B, or Grade 32510 galvanized to A.S.T.M. A-153.
 - All Rail Tubing shall conform to A.S.T.M. A-53, Grade B, (Pipe or Tube) galvanized to A.S.T.M. A-120.
 - Metal handrail shall be measured in lineal feet. The length paid for shall be the overall length along the top longitudinal railing member through all posts and gaps.
 - Metal handrail will be paid for at the contract unit price per lineal foot for METAL HANDRAIL, measured as specified, which price shall be payment in full for all materials, fabrication, transportation, and erection.
 - If any of the galvanizing coat is damaged or removed during erection, the affected area shall be painted with one coat of zinc paint in accordance with Military Specification MIL-P-26915 Type I, air-dry cure.
 - Rail Tubing may extend a maximum of 3 panel lengths.
 - For material composition of Prefabricated Pad, see Art. 549 (f), (Bearing and Anchorage), of the Standard Specifications.
 - Galvanized railing shall not be painted.



ELEVATION - END POST



PLAN - END POST



SEC. THRU CURB

BILL OF MATERIAL

Item	Unit	Quantity
METAL HANDRAIL	Lin. Ft.	495
		496

TYPE E
METAL HANDRAIL

HANDRAIL DETAILS
S.B.I.R.T. 53 SEC. 531-2HB
COOK COUNTY
STA. 215+29.43

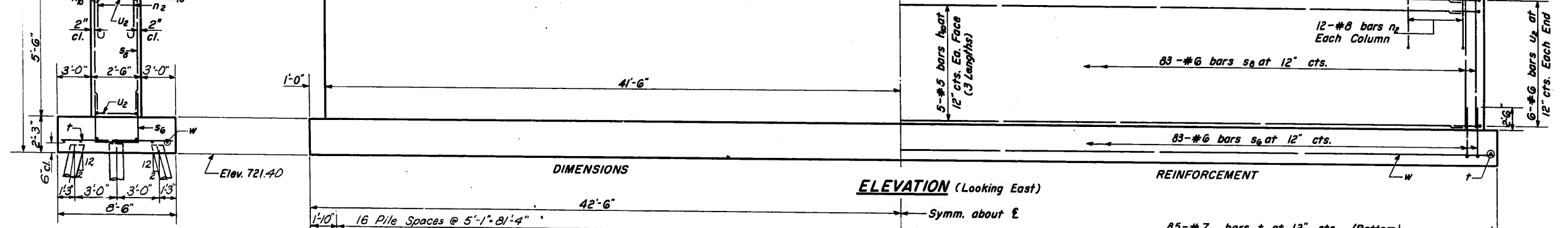
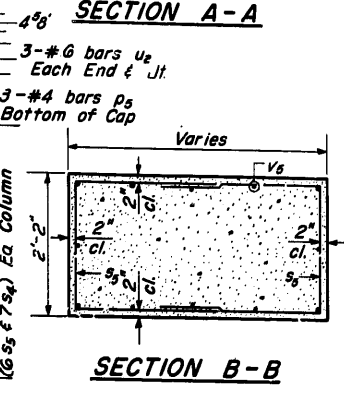
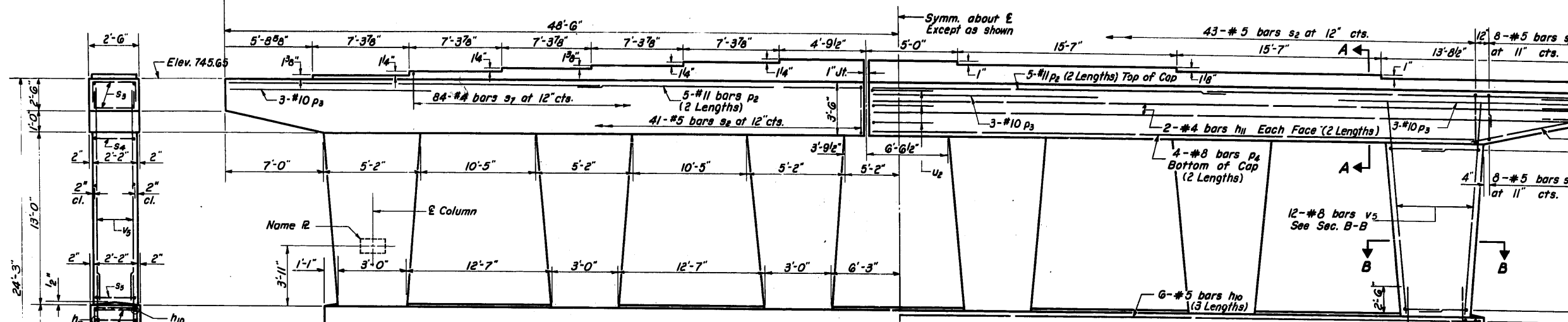
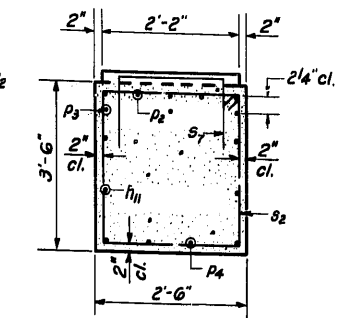
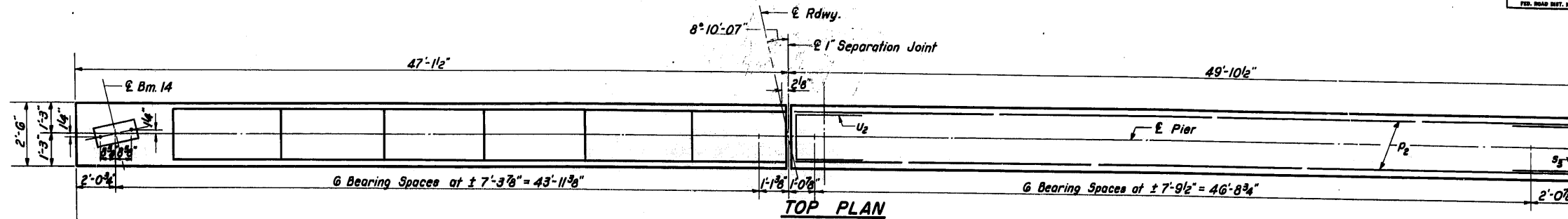
DESIGNED	EXAMINED
CHECKED	PASSED
DRAWN Wm. M. Best	APPROVED
CHECKED	

MAY 22 1963

W. B. Bannan
E. J. Shurtz

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7 15 SHEETS
S.B.I. 531-2	HB	Cook	21	11	
F.A. 61	AD				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			



END VIEW

PILE DATA
Type - Creosoted Timber
Capacity - 21 Ton
Est. Length - 22 Ft.
No. Reqd - 51

BILL OF MATERIAL

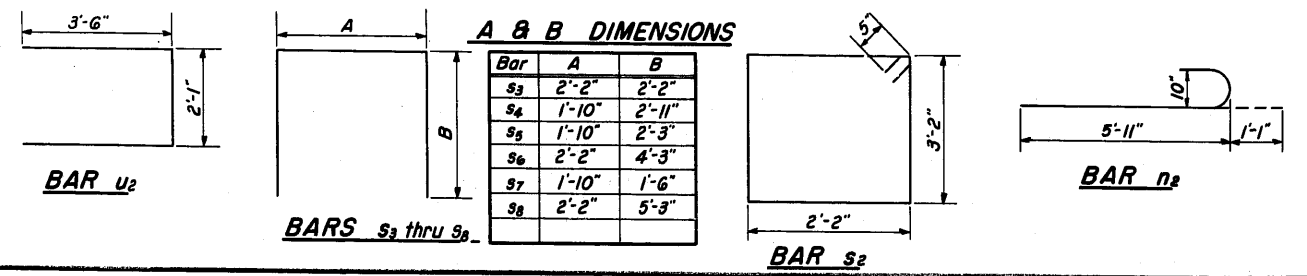
Bar No.	Size	Length	Shape
h10	48 #5	27'-6"	—
h11	16 #4	25'-6"	—
n2	72 #8	7'-0"	C
p2	20 #11	26'-3"	—
p3	9 #10	15'-0"	—
p4	16 #8	22'-4"	—
p5	6 #4	7'-6"	—
s2	84 #5	11'-6"	□
s3	32 #5	6'-6"	□
s4	84 #4	7'-8"	□
s5	72 #4	6'-4"	□
s6	83 #6	10'-8"	□
s7	84 #4	4'-10"	□
s8	83 #6	12'-8"	□
t	85 #7	8'-2"	—
u2	24 #6	9'-1"	□
v5	72 #8	15'-3"	—
w	21 #5	29'-0"	—

Class X Concrete	Cu. Yds.	161.2
Reinforcement Bars	Lbs.	17,800
Name Plates	Each	1
Creosoted Piles	Lin. Ft.	1,122

DESIGNED *Fred Stone*
CHECKED *Robert Clark*
DRAWN *J.L. Armstrong*
W. A. Sausaman Jr.
CHECKED *B.G. C.*

EXAMINED *W. Brumann*
PASSED *E.P. Shurt*
APPROVED *J. R. ...*

MAY 22 1963

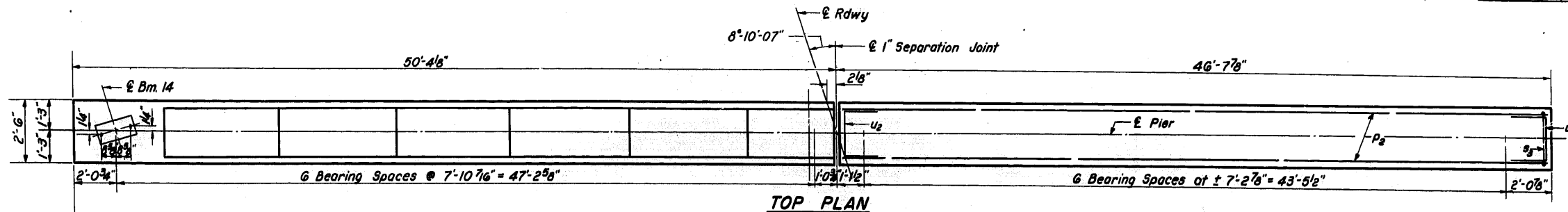


Note:
Space reinforcement in cap to miss anchor bolts.
Min. bar laps = 20 dia. unless otherwise noted.
All edges shall have standard 3/4" chamfers except as noted.
Four steps monolithically with cap.

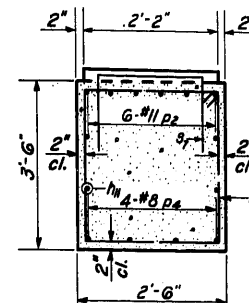
PIER #1
S.B.I. RT. 53 SEC. 531-2-HB
COOK COUNTY
STA. 215+29.43

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

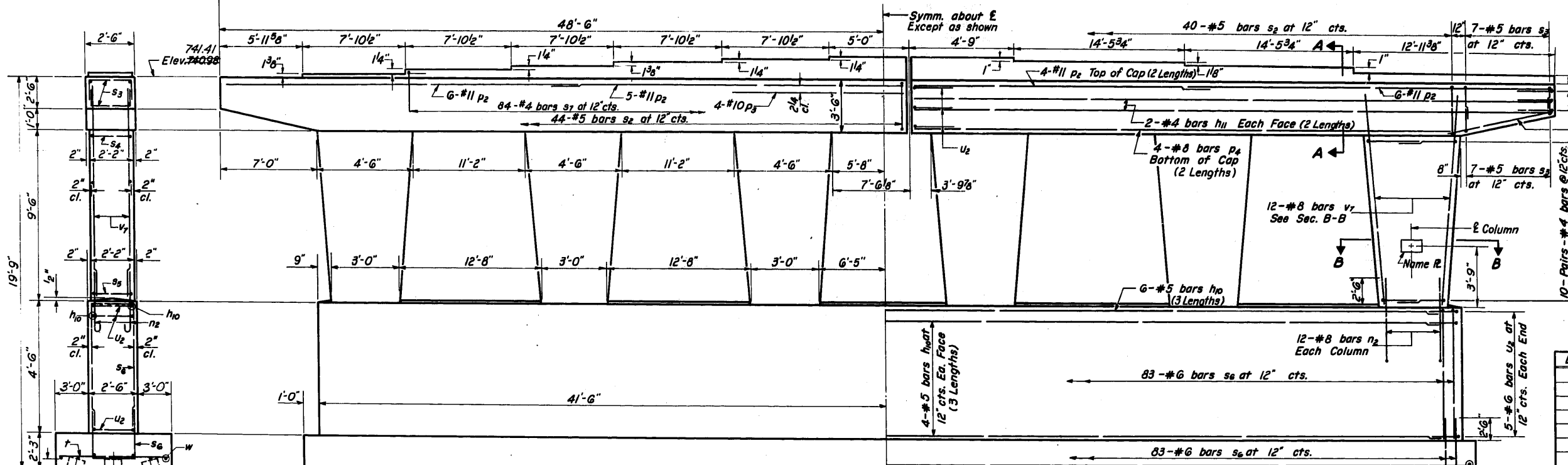
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
531-2	HB	Cook	21	13
SHEET NO. 9 15 SHEETS				



TOP PLAN

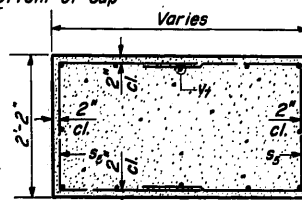


SECTION A-A



ELEVATION (Looking East)

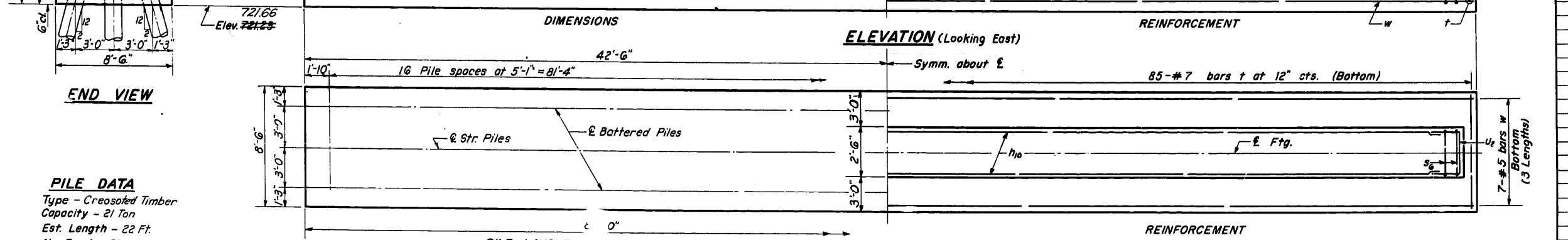
REINFORCEMENT



SECTION B-B
(Typical Each Column)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10	42	#5	27'-6"	—
h11	16	#4	25'-6"	—
n2	72	#8	7'-0"	C
p2	21	#11	26'-3"	—
p3	4	#10	15'-0"	—
p4	16	#8	22'-4"	—
p5	6	#4	7'-6"	—
s2	84	#5	11'-6"	□
s3	28	#5	6'-6"	□
s4	60	#4	7'-8"	□
s5	60	#4	6'-4"	□
s6	166	#6	10'-8"	□
s7	84	#4	4'-10"	□
t	85	#7	8'-2"	—
u2	22	#6	9'-1"	□
v7	72	#8	11'-9"	—
w	21	#5	29'-0"	—
Class X Concrete				Cu. Yds. 145.1
Reinforcement Bars				Lbs. 16,290
Name Plates				Each 1
Creosoted Piles				Lin. Ft. 1122

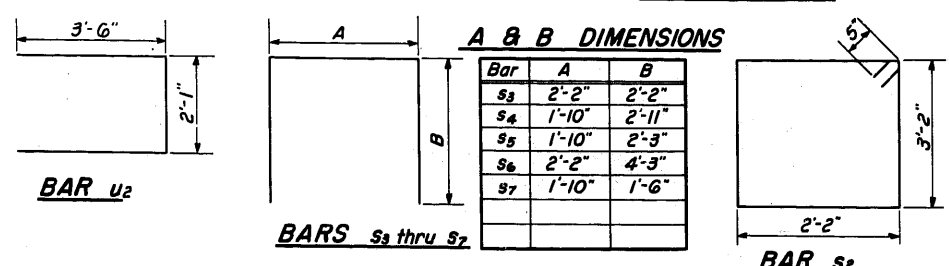


PILE LAYOUT & DIMENSIONS

FOOTING PLAN

PILE DATA
Type - Creosoted Timber
Capacity - 21 Ton
Est. Length - 22 Ft.
No. Reqd. - 51
Test Piles -

DESIGNED *Fred Stone*
CHECKED *Bobby J. Chilton*
DRAWN *J. L. Armstrong*
W. A. Sausaman Jr.
CHECKED *B.G.C.*
EXAMINED *W. J. ...*
PASSED *E. J. ...*
APPROVED *...*
MAY 22 1963



Bar	A	B
s3	2'-2"	2'-2"
s4	1'-10"	2'-11"
s5	1'-10"	2'-3"
s6	2'-2"	4'-3"
s7	1'-10"	1'-6"

Note:
Space reinforcement in cap to miss anchor bolts.
Min. bar laps = 20 dia. unless otherwise noted.
All edges shall have standard 3/4" chamfers except as noted.
Pour steps monolithically with cap.

PIER #3
SBI RT. 53 SEC. 531-2-HB
COOK COUNTY
STA. 215+29.43

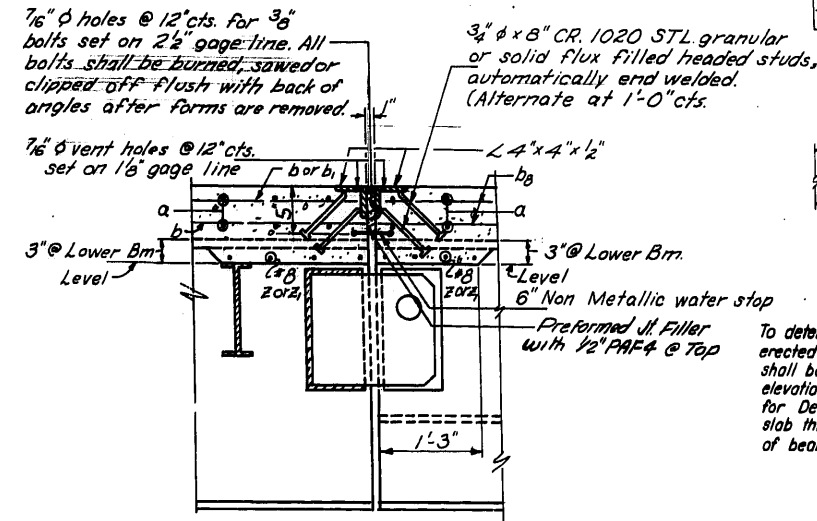
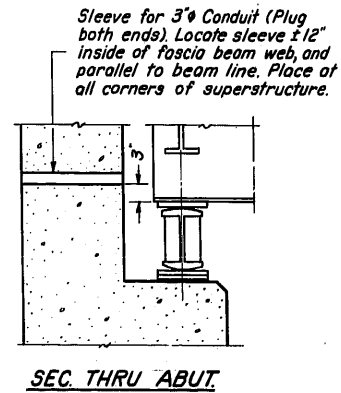
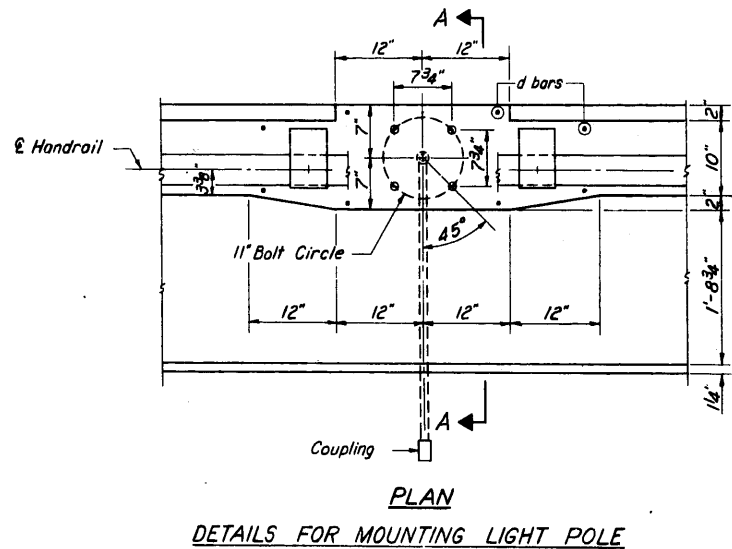
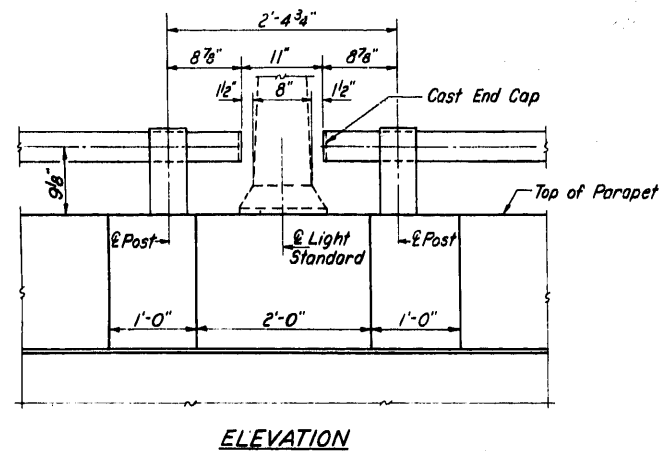
P-6 2-16-62

J.I.R. Rev. 9-20-63. Batt. Footing and Bridge seat elev. raised 0.43 ft. (721.23 to 721.66 & 740.98 to 741.41 respectively)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

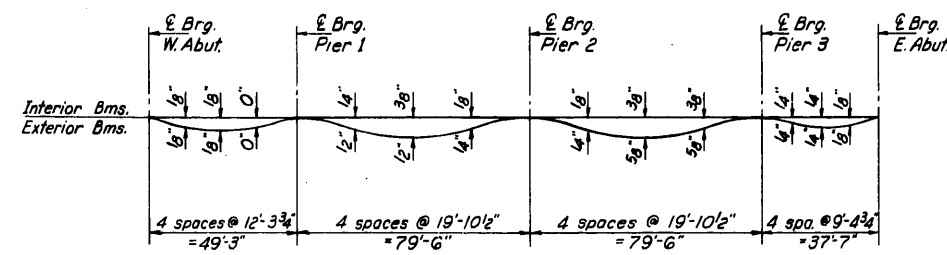
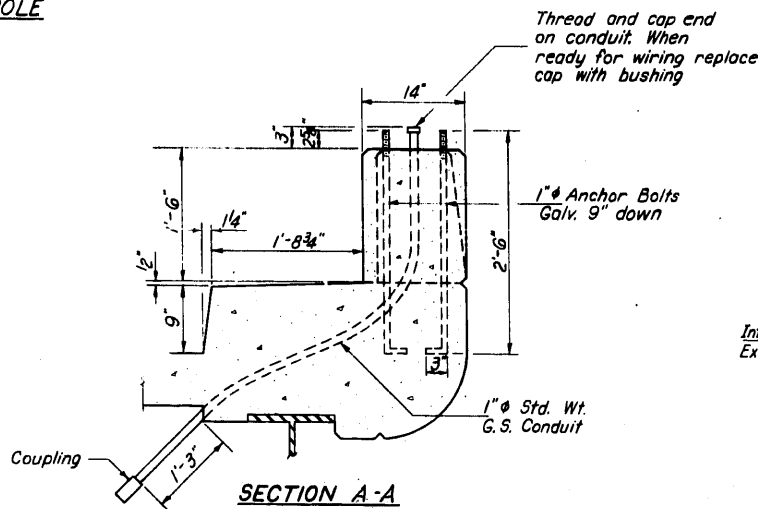
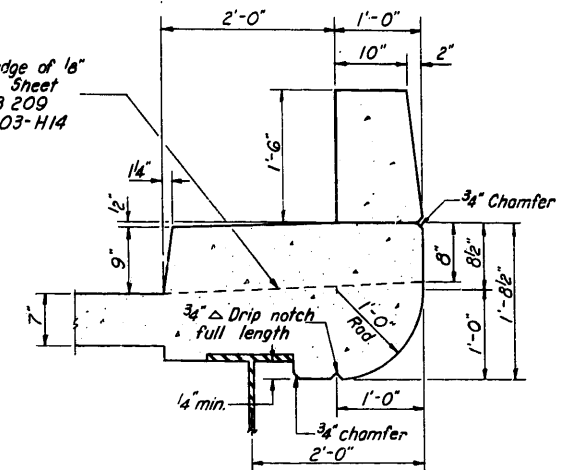
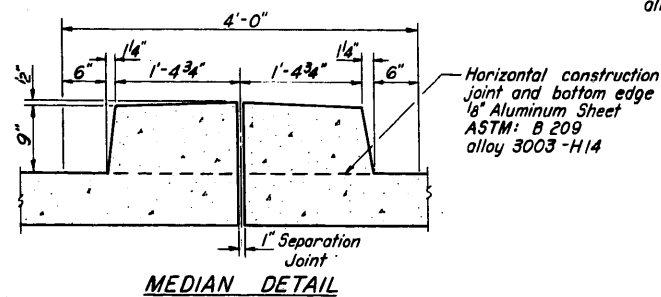
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
53	531-2	Cook	21	14
61	HB			
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT.	

SHEET NO. 10
15 SHEETS



STANDARD FILLET DETAIL

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet #13. These elevations subtracted from the "Grade Elevations Adjusted for Dead Load Deflections" shown on sheet #13, minus slab thickness, equals the fillet heights "t" above top of beams.



**SUPERSTR. DETAILS & ANCHORAGE
AT LIGHT STANDARD**
S.B.I. RT. 53 SEC. 531-2-HB
COOK COUNTY
STA. 215+29.43

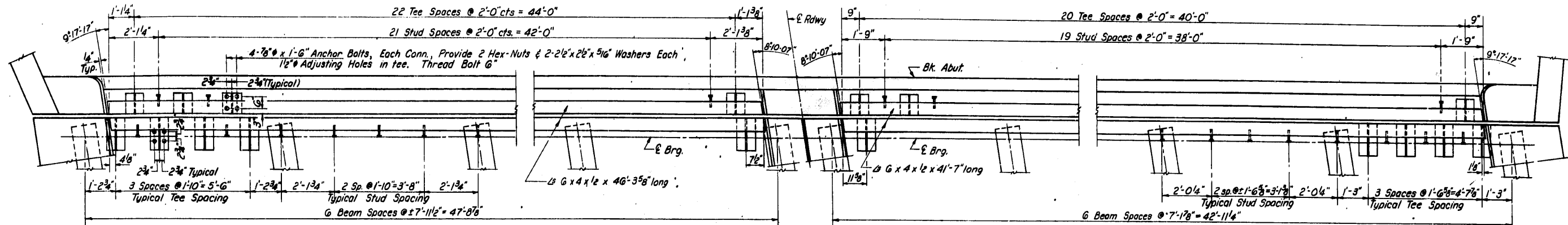
DESIGNED *Fred Stone*
CHECKED *Melvin Ramakrishna*
DRAWN *J.L. Armstrong*
CHECKED *M.P.*

EXAMINED *W. B. ...*
PASSED *E. J. ...*
APPROVED *E. J. ...*

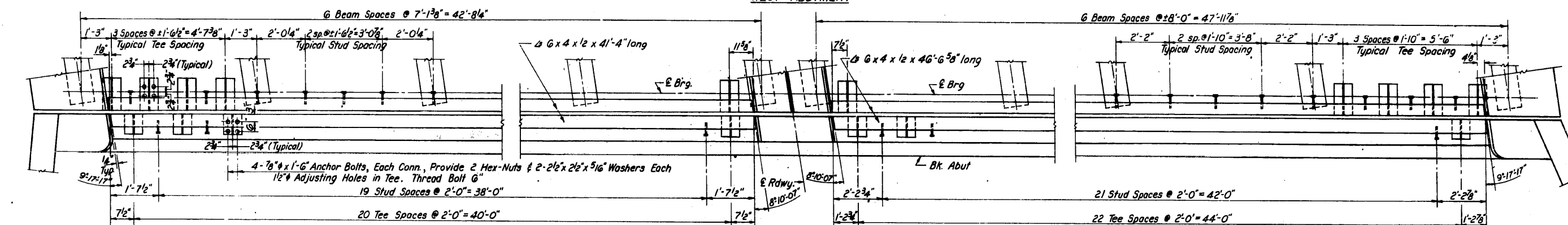
May 22 1963

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

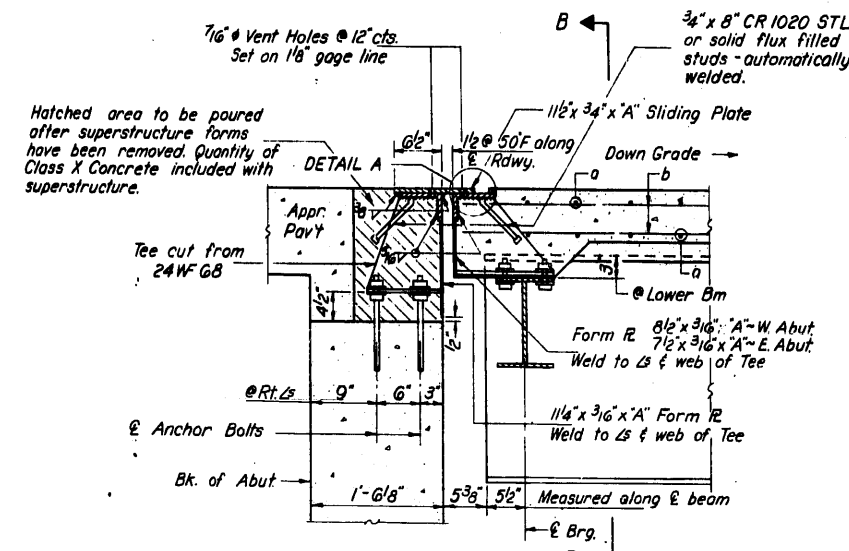
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. II
S.B.I. 53-531-2-61	HB	Cook	21	15	15 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:			



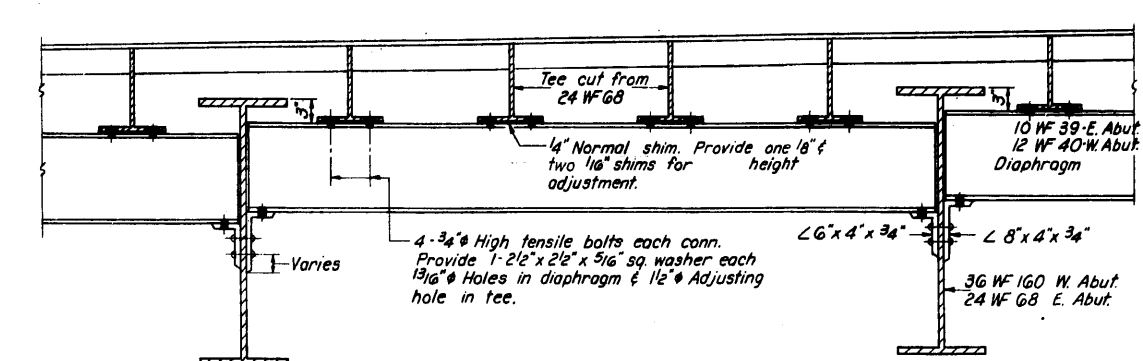
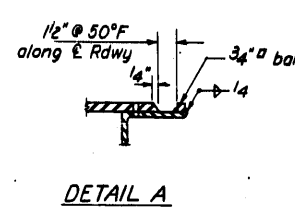
PLAN OF EXPANSION DEVICE
WEST ABUTMENT



PLAN OF EXPANSION DEVICE
EAST ABUTMENT



NOTE: Sec. A-A shows details of West Abutment. At East Abutment, the sliding plate welded to angle shall be attached to stools on superstructure; the angle and 3/4" bar shall be welded to stools on Abutment.



SECTION B-B

DESIGNED *Fred Stone*
CHECKED *Bobby J. Chilton*
DRAWN *J.L. Armstrong*
CHECKED *B.G.C.*

EXAMINED *W. R. ...*
PASSED *E. J. ...*
APPROVED *J. E. ...*

TABLE OF "A" DIMENSIONS

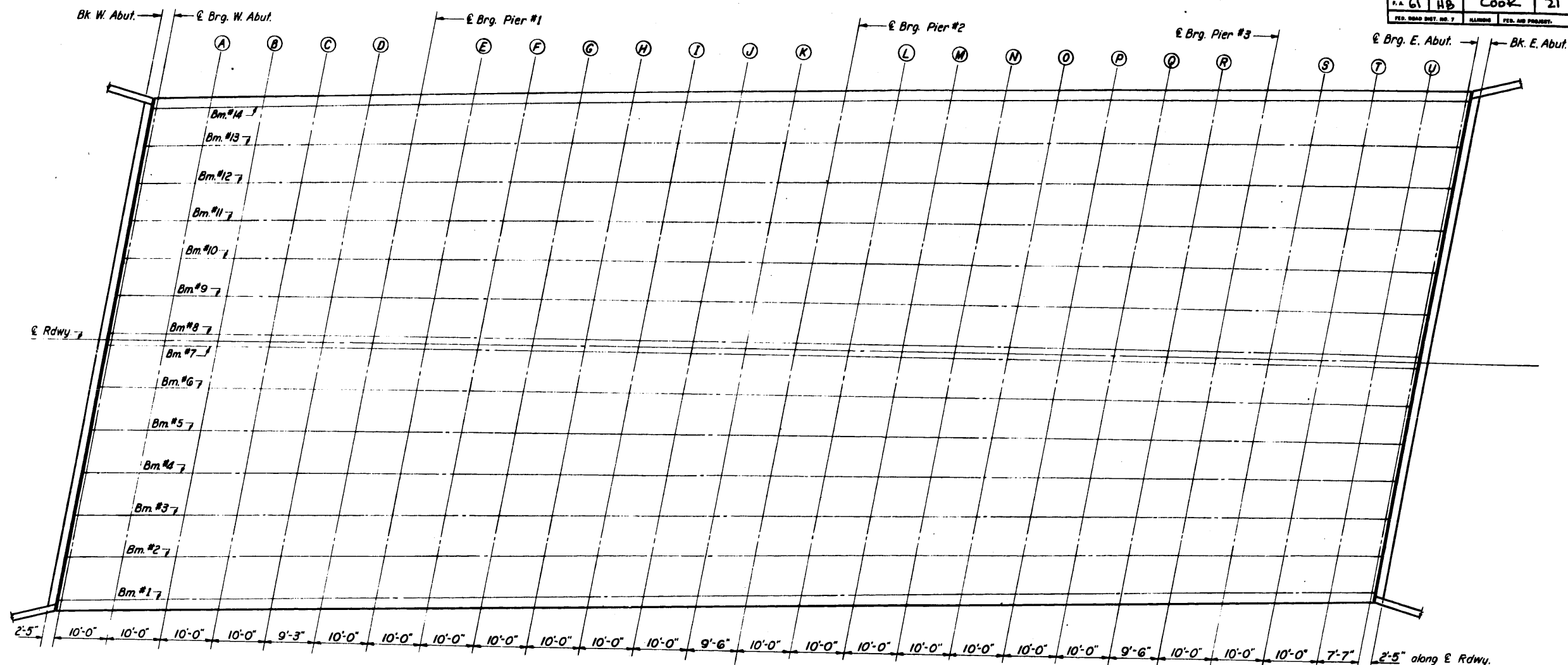
Location	"A"
West Abut. North Bridge	41'-7"
West Abut. South Bridge	46'-3 5/8"
East Abut. North Bridge	46'-6 5/8"
East Abut. South Bridge	41'-4"

EXPANSION DEVICE
S.B.I. RT. 53 SEC. 531-2-HB
COOK COUNTY
STA. 215 + 29.43

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 53	531-2-HB	Cook	21	17
F.A. 61	HB			
FED. ROAD DIST. NO. 7	ALIGNED	FED. AID PROJECT		

SHEET NO. 13
15 SHEETS



PLAN

THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION

Location	Bk. W. Abut.	E. Brg. W. Abut.	A	B	C	D	E. Brg. Pier #1	E	F	G	H	I	J	K	E. Brg. Pier #2	L	M	N	O	P	Q	R	E. Brg. Pier #3	S	T	U	E. Brg. Abut.	Bk. E. Abut.
Bm #1	752.02	751.97	751.77	751.56	751.34	751.10	750.89	750.68	750.45	750.21	749.96	749.70	749.43	749.16	748.89	748.62	748.36	748.09	747.83	747.54	747.26	746.95	746.65	746.37	746.07	745.77	745.53	745.46
Bm #2	752.07	752.02	751.82	751.61	751.38	751.15	750.94	750.71	750.48	750.25	750.00	749.73	749.46	749.19	748.93	748.66	748.39	748.12	747.85	747.57	747.29	746.98	746.68	746.41	746.11	745.80	745.57	745.50
Bm #3	752.13	752.08	751.87	751.66	751.43	751.20	750.99	750.76	750.53	750.29	750.05	749.78	749.51	749.24	748.98	748.70	748.43	748.16	747.89	747.61	747.32	747.02	746.72	746.45	746.15	745.84	745.61	745.53
Bm #4	752.18	752.13	751.93	751.71	751.48	751.25	751.03	750.81	750.58	750.34	750.09	749.82	749.55	749.28	749.02	748.75	748.48	748.20	747.93	747.65	747.36	747.06	746.76	746.49	746.19	745.88	745.65	745.57
Bm #5	752.24	752.19	751.98	751.76	751.53	751.30	751.08	750.86	750.63	750.39	750.14	749.87	749.60	749.32	749.06	748.79	748.52	748.24	747.97	747.69	747.40	747.09	746.80	746.53	746.23	745.92	745.68	745.61
Bm #6	752.29	752.24	752.03	751.81	751.58	751.35	751.13	750.91	750.67	750.43	750.18	749.92	749.64	749.37	749.10	748.83	748.56	748.29	748.01	747.73	747.44	747.13	746.84	746.57	746.26	745.95	745.72	745.65
Bm #7	752.33	752.29	752.08	751.86	751.63	751.40	751.18	750.96	750.72	750.48	750.23	749.96	749.69	749.41	749.15	748.87	748.60	748.33	748.05	747.77	747.48	747.17	746.88	746.60	746.30	745.99	745.75	745.68
Bm #8	752.33	752.29	752.08	751.86	751.63	751.40	751.18	750.96	750.72	750.48	750.23	749.96	749.69	749.41	749.15	748.87	748.60	748.33	748.05	747.77	747.48	747.17	746.88	746.60	746.30	745.99	745.75	745.68
Bm #9	752.24	752.20	751.99	751.77	751.54	751.30	751.08	750.86	750.62	750.38	750.13	749.86	749.59	749.31	749.04	748.77	748.50	748.22	747.95	747.66	747.37	747.06	746.77	746.49	746.19	745.88	745.65	745.57
Bm #10	752.15	752.11	751.89	751.68	751.45	751.21	750.99	750.76	750.52	750.28	750.03	749.76	749.48	749.21	748.94	748.66	748.39	748.12	747.84	747.55	747.26	746.96	746.66	746.38	746.08	745.77	745.53	745.46
Bm #11	752.06	752.02	751.80	751.58	751.36	751.11	750.89	750.66	750.43	750.18	749.93	749.66	749.38	749.10	748.83	748.56	748.29	748.01	747.73	747.45	747.15	746.85	746.55	746.27	745.97	745.65	745.42	745.34
Bm #12	751.97	751.92	751.71	751.49	751.26	751.01	750.80	750.56	750.33	750.08	749.83	749.56	749.28	749.00	748.73	748.45	748.18	747.90	747.63	747.34	747.05	746.74	746.44	746.16	745.85	745.54	745.30	745.23
Bm #13	751.88	751.83	751.62	751.39	751.16	750.92	750.70	750.47	750.23	750.08	749.73	749.45	749.18	748.89	748.63	748.35	748.07	747.80	747.52	747.23	746.94	746.63	746.33	746.05	745.74	745.43	745.19	745.11
Bm #14	751.79	751.74	751.53	751.30	751.07	750.83	750.60	750.38	750.15	749.90	749.64	749.36	749.08	748.80	748.52	748.25	747.98	747.71	747.43	747.13	746.85	746.53	746.22	745.94	745.63	745.32	745.07	745.00

DESIGNED Fred Stone
CHECKED Melvin Ramoth
DRAWN J. L. Armstrong
CHECKED F. Stone

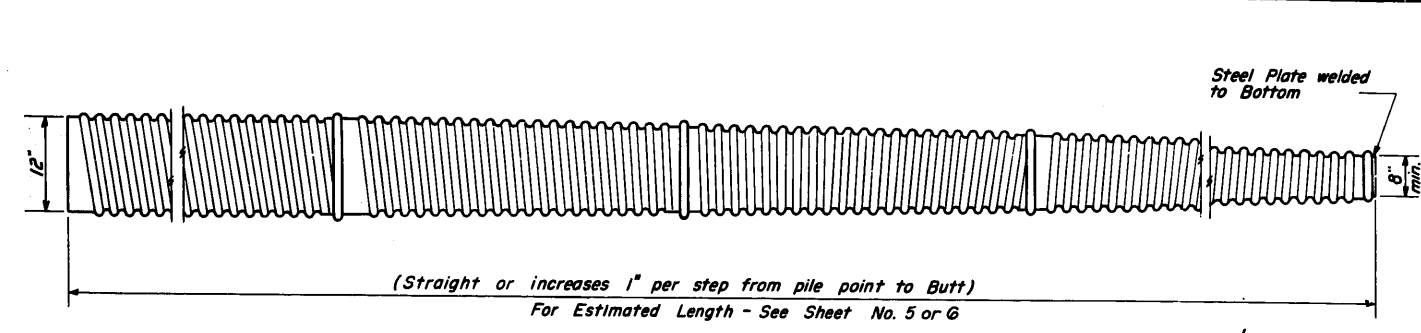
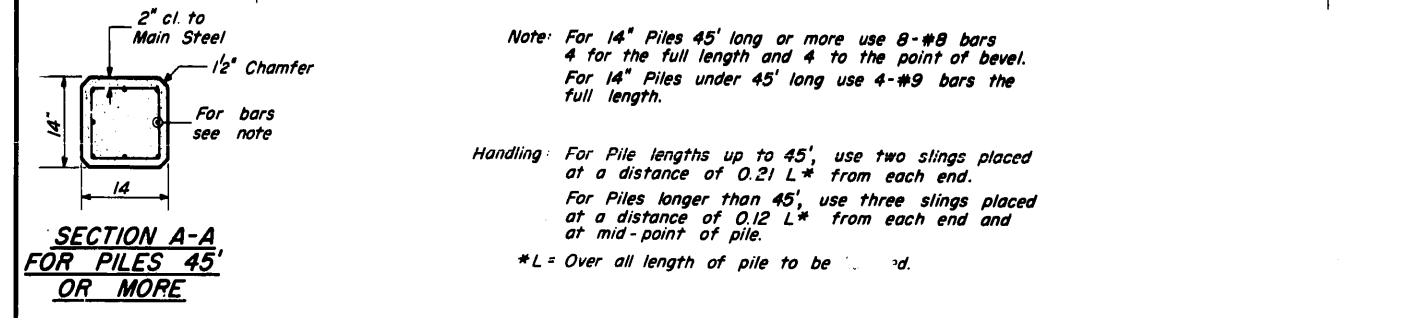
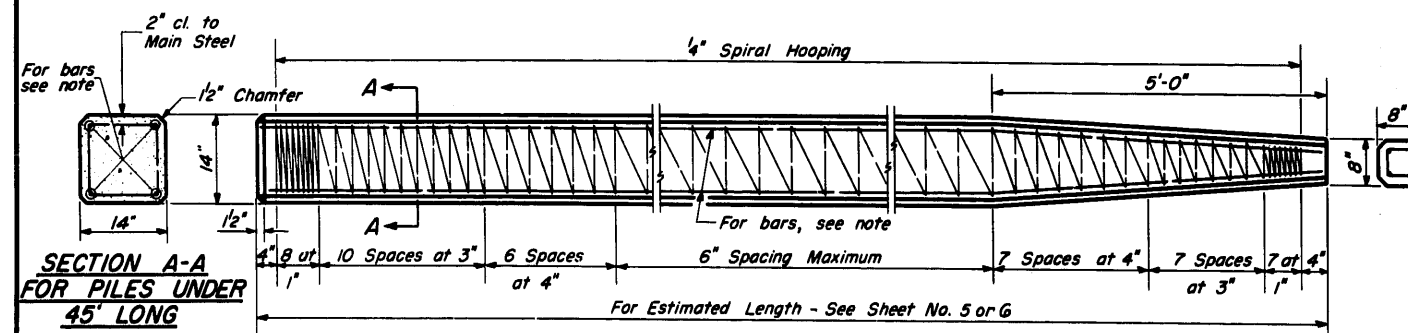
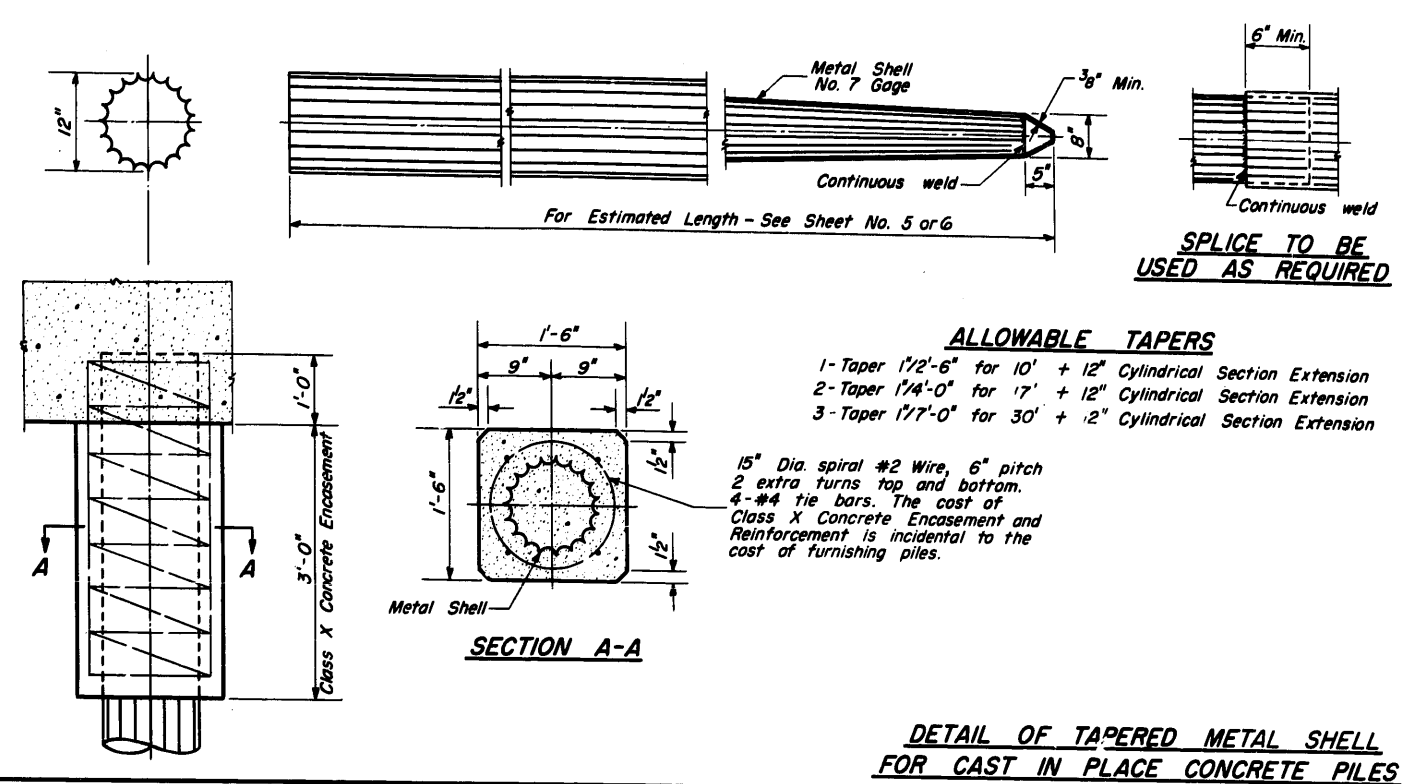
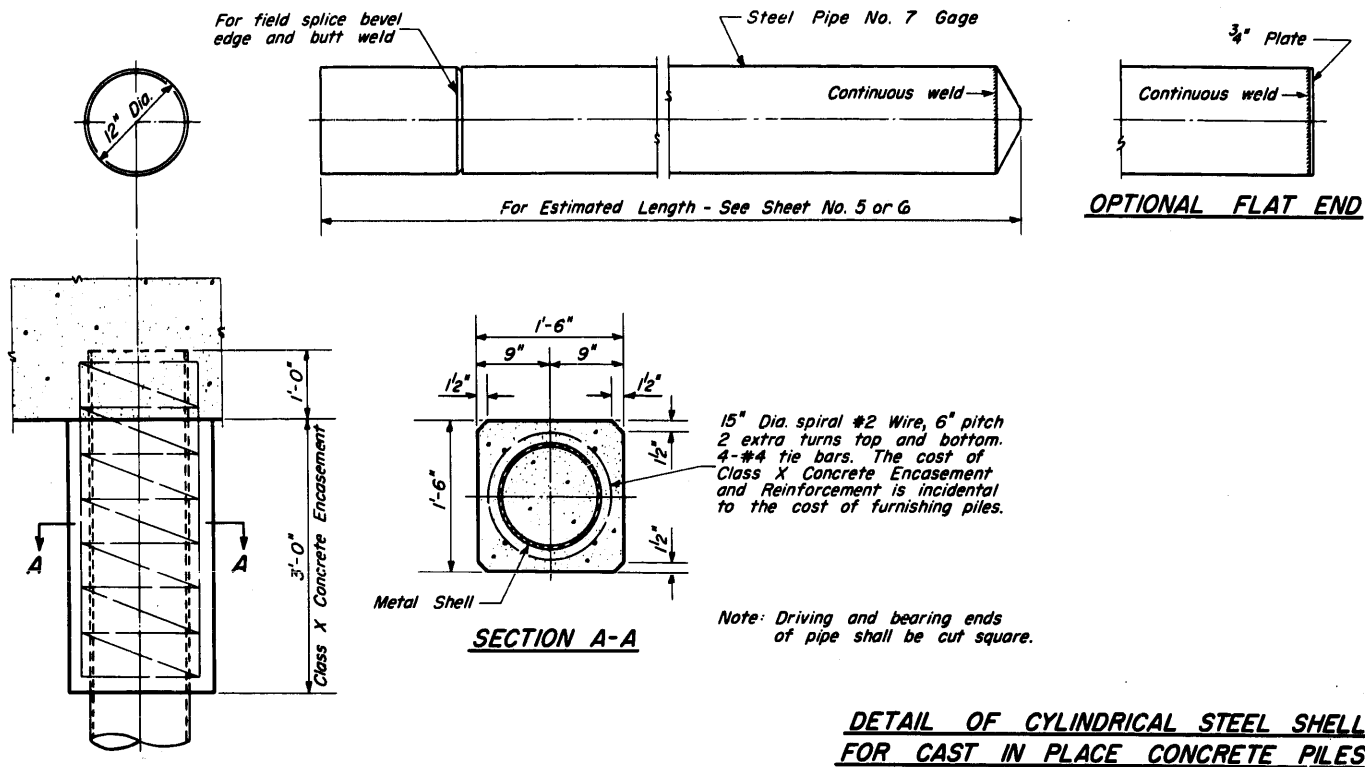
EXAMINED *W. J. ...*
PASSED *E. J. ...*
APPROVED *[Signature]*

MAY 22 1963

TOP OF SLAB ELEVATIONS
S.B.I. RT. 53 SEC. 531-2-HB
COOK COUNTY
STA. 215+29.43

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14
S.B.I. 53-2-1	HB	Cook	21	18	15 SHEETS
P.A. 61					
FILED DIST. NO. 1	ILLINOIS	FOR HIGHWAY PROJECT			



DESIGNED	Fred Stone	EXAMINED	W. Baumann
CHECKED	Bobby A. Johnson	PASSED	E. J. Shultz
DRAWN	J. L. Armstrong	APPROVED	[Signature]
CHECKED	W. A. Sausaman		
	B. G. C.		

MAY 22 1963

CHIEF HIGHWAY ENGINEER

X-1 Rev. 5-12-61 9-27-62

DETAIL OF PRECAST CONCRETE PILES

PILE DETAILS
S.B.I. RT. 53 SEC. 531-2-HB
COOK COUNTY
STA. 215+29.43

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 15
53	531-2	COOK	21	19	15 SHEETS
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

Boring No.	Station	Offset	Elevation	N	Q _u (T)	Ch. V/L	w (%)	Type
C-1	23-36	C. S. of Pier #3	742.7					
			0					
			13					
			14					
			-5					
			11					
			7					
			-10					
			9					
			11					
			12					
			-15					
			8					
			10					
			7					
			12					
			-20					
			9					
			11					
			-25					
			12					
			13					

Surface Water E.	Groundwater E. at Completion	After Hours	Elevation	N	Q _u (T)	w (%)	Type
			-30				
			11		2.91	B	
			7		2.13	B	
			-35				
			7		1.94	B	
			7		2.10	B	
			-40				
			10		2.31	B	
			7		2.52	B	
			-45				
			7		2.52	B	
			7		2.33	B	
			-50				
			28				
			20				

Boring No.	Station	Offset	Elevation	N	Q _u (T)	w (%)	Type
C-2	23-36	C. S. of Pier #3	741.30				
			0				
			13				
			-5				
			12		2.01	B	
			11		7.01	B	
			17		4.56	B	
			-10				
			11		2.33	B	
			8		1.63	B	
			-15				
			12		3.10	B	
			8		3.30	B	
			-20				
			19		2.33	B	
			18		4.43	B	
			-25				
			18		1.94	B	
			7		1.94	B	
			-35				
			14		1.94	B	
			7		1.94	B	
			-40				
			14		1.94	B	
			18		2.91	B	
			-45				

Boring No.	Station	Offset	Elevation	N	Q _u (T)	w (%)	Type
C-3	23-36	C. S. of Pier #3	742.8				
			0				
			9				
			10				
			-5				
			9				
			11				
			12				
			-10				
			10				
			11				
			-15				
			11		2.91	B	
			6		2.13	B	
			-20				
			8		1.36	B	
			9		1.56	B	
			-25				
			12		2.91	B	
			9		1.63	B	
			-30				
			5		2.13	B	
			7		0.91	B	
			-35				
			7		2.91	B	
			10		2.91	B	
			-40				
			11		2.52	B	
			9		2.91	B	
			-45				
			12		2.72	B	
			8		2.33	B	
			8		2.33	B	
			5		1.94	B	
			9				
			-50				

Boring No.	Station	Offset	Elevation	N	Q _u (T)	w (%)	Type
C-4	23-36	C. S. of Pier #3	744.6				
			0				
			10				
			-5				
			8				
			11				
			12				
			-10				
			10				
			11				
			-15				
			11		2.33	B	
			11		4.65	B	
			-20				
			10		2.91	B	
			10		1.55	B	
			-25				
			9		1.32	B	
			9		1.32	B	
			-20				
			6		3.10	B	
			9		1.55	B	
			-25				
			7		2.33	B	
			7		2.13	B	
			-30				
			10		3.30	B	
			10		4.26	B	
			-35				
			6		2.72	B	
			9		2.72	B	
			-40				
			7		2.91	B	
			7		2.91	B	
			-45				
			11		2.72	B	
			11		2.52	B	
			-50				
			11		2.33	B	
			11		2.52	B	
			-55				
			7		2.22	B	

Boring No.	Station	Offset	Elevation	N	Q _u (T)	w (%)	Type
C-5	23-36	C. S. of Pier #3	743.8				
			0				
			7				
			12		2.52	B	
			-20				
			7		2.52	B	
			-5				
			4		2.5	B	
			7		2.5	B	
			-10				
			6		2.36	B	
			-10				
			7		4.26	B	
			-10				
			7		2.33	B	
			11		4.65	B	
			-15				
			10		1.55	B	
			9		1.32	B	
			-20				
			6		3.10	B	
			9		1.55	B	
			-25				
			7		2.33	B	
			7		2.13	B	
			-30				
			10		2.93	B	

Surface Water E.	Groundwater E. at Completion	After Hours	Elevation	N	Q _u (T)	w (%)	Type
			7				
			12		2.52	B	
			-20				
			7		2.52	B	
			11		2.52	B	
			8		2.52	B	
			-25				
			5		1.54	B	
			-10				
			7		4.26	B	
			-10				
			10		2.33	B	
			10		2.33	B	
			-15				
			9		2.52	B	
			-20				
			10		5.43	B	
			13		3.66	B	
			-45				
			6		2.91	B	
			12		2.91	B	
			-50				
			6		1.94	B	
			-50				
			7		2.33	B	
			-50				

N - Standard Penetration Test - Blows per foot to drive 2" O.B. Split Spore Sampler 12" with 100g hammer falling 30".
 Qu - Unconfined Compressive Strength - 1/d
 w - Water Content - percentage of oven dry weight - %
 Type failure: B - Edge Failure, S - Shear Failure, E - Estimated Value

DESIGNED Fred Stone
 CHECKED M. Parnash
 DRAWN P. G. Barnett
 CHECKED F. J.
 EXAMINED W. B. Baumann
 PASSED E. J. Shuck
 APPROVED J. E. [Signature]
 MAY 22 1963

BORING DATA
 S.B.I. Rt. 53 SEC. 531-2 HB
 COOK COUNTY
 STA. 215+29.43